

## PROPOSED

### COVERED SOURCE PERMIT (CSP) REVIEW - 0232-01-C (RENEWAL)

**Facility:** Maui Electric Company, Ltd.  
Located at Kahului Generating Station, Kahului, Maui  
UTM Coordinates 763.673 km east, 2313.143 km north (zone 4)

**Applicant:** Maui Electric Company, Ltd.

**Responsible Official:** Mr. Stanley Kiyonaga  
Manager, Power Supply  
(808) 871-2378

**Mailing Address:** P.O. Box 398  
Kahului, HI 96733

**Equipment:** 5.9 MW (5.0 MW nominal), 94.0 MMBtu/hr Combustion Engineering Boiler (K-1),  
Serial No. 13414  
6.0 MW (5.0 MW nominal), 94.0 MMBtu/hr Combustion Engineering Boiler (K-2),  
Serial No. 15345  
12.7 MW (11.5 MW nominal), 172.0 MMBtu/hr Combustion Engineering Boiler  
(K-3), Serial No. 17343  
13.0 MW (12.5 MW nominal), 181.0 MMBtu/hr Babcock and Wilcox Boiler (K-4),  
Serial No. PFI3030

**Air Pollution Control Equipment:**  
None

#### **Background:**

CSP No. 0232-01-C expired May 1, 2004. The applicant submitted their renewal application for a covered source on April 28, 2003, which met Attachment I, Standard Condition No. 26 requiring renewal application to be submitted a minimum of 12 months prior to permit expiration. The application filing fee of \$3,000.00 was also received with the application. Revision to the application was submitted September 9, 2003; and April 5 and June 3, 2004. No proposed design or operation changes have been proposed for the renewal.

The four boilers are grandfathered sources (e.g., installed/operating before March 21, 1972) that is currently permitted to operate 24 hours per day, seven days per week. There are three 28,000 barrel capacity storage tanks supplying fuel oil no. 6 to the boilers. The boilers may also burn fuel oil no. 2 when fuel oil no. 6 is not available and also specification used oil. The Kahului Generating Station generates electricity for sale and thus the Standard Industrial Classification Code (SICC) is 4911.

The Kahului Generating Station is located in the north-central region of Maui. The elevation of the plant is approximately 3.7 meters above sea level.

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### Applicable Requirements:

#### Hawaii Administrative Rules (HAR)

Chapter 11-59, Ambient Air Quality Standards

Chapter 11-60.1, Air Pollution Control

Subchapter 1, General Requirements

Subchapter 2, General Provisions

11-60.1-31 Applicability

11-60.1-32 Visible Emissions

11-60.1-38 Sulfur Oxides from Fuel Combustion

11-60.1-39 Storage of Volatile Organic Compounds

Subchapter 5, Covered Sources

Subchapter 6, Fees for Covered Sources, Noncovered sources and  
Agricultural Burning

11-60.1-111 Definitions

11-60.1-112 General Fee Provisions for Covered Sources

11-60.1-113 Application Fees for Covered Sources

11-60.1-114 Annual Fees for Covered Sources

11-60.1-116 Application Fee Credit for Covered Sources

#### Compliance Data System (CDS):

Facility is a covered source. The facility is included in an inventory system for annual inspection.

#### Consolidated Emissions Reporting Rule (CERR):

40 CFR Part 51, Subpart A - Emissions Inventory Reporting Requirements, determines CER based on facility-wide emissions of each air pollutant at the CER triggering level(s). As shown in Table 1, CER is applicable.

Table 1- CERR Triggering Levels

Pollutant	Facility Emissions, TPY	CER Triggering Levels, TPY
NO <sub>x</sub>	1,472	100
SO <sub>x</sub>	5,214	100
CO	156	1,000
PM <sub>10</sub>	1,528	100
VOC	11	100
Pb	2.39 E-02	5

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### **Non-Applicable Requirements:**

#### Prevention of Significant Deterioration (PSD), 40 CFR 51.166 and 52.21

PSD is not applicable for this renewal since there are no new proposed major sources or modifications that would increase criteria pollutant emissions  $\geq$  250 TPY or 100 TPY for a listed source

#### New Source Review (NSR)

Not applicable since facility is located in an attainment area (e.g., an air pollutant for which a national ambient air quality standard exists)

#### National Emission Standards for Hazardous Air Pollutants (NESHAP)

Not a listed source under 40 CFR 61 or 63

#### New Source Performance Standards (NSPS), 40 CFR 60

Boilers were installed prior to promulgation of NSPS (e.g., Subpart D, Da, and Db) and therefore, not applicable to NSPS. Also, VOC storage tanks are exempt from NSPS (e.g., Subpart K, Ka, Kb) since the tanks are storing fuel with true vapor pressure less than 3.5 kPa.

#### Best Available Control Technology (BACT)

BACT Analysis is required for new covered sources and significant modifications to existing covered sources that have the potential to emit or increase emissions above significant levels, as defined in HAR 11-60.1-1, considering any limitations, enforceable by the Director, on the covered source to emit a pollutant. BACT determination includes all fugitive emissions (except for vehicle traffic emissions, which is included if the definition of "major" requires the consideration of fugitives in calculating potential emissions for major source determination). For this facility, the permittee proposes no significant modifications and therefore BACT is not applicable

#### Maximum Achievable Control Technology (MACT)

Total HAP emissions are 10.01 TPY (note: worst case for fuel oil combustion 8,760 hr/yr). Highest single HAP (e.g., chloride) emission is 5.47 TPY. The emission thresholds for "major" status and MACT applicability is 25 and 10 TPY for total and single HAP emissions, respectively. HAPs emissions do not exceed the threshold levels and thus not subject to MACT.

#### Compliance Assurance Monitoring (CAM), 40 CFR 64

The purpose of CAM is to provide reasonable assurance that compliance is being achieved with large emissions units that rely on air pollution control equipment to meet an emissions limit or standard. Pursuant to 40 CFR, Part 64, for Cam to be applicable, the emissions unit must (1) be located at a major source; (2) be subject to an emissions limit or standard; (3) use a control device to achieve compliance; (4) have potential pre-control emissions that are 100% of the major source level; and (5) not otherwise be exempt from CAM. The facility does not meet items (2), (3), (4) and (5), and thus, CAM is not applicable.

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### Synthetic Minor

Potential emissions equal to or greater than 100 TPY and reduced by physical or operating restrictions to below 100 TPY would trigger synthetic minor status. The potential emissions are already greater than 100 TPY (i.e., NO<sub>x</sub>, SO<sub>x</sub>, or PM) and thus, facility is not deemed a synthetic minor.

### **Insignificant Activities:**

As listed by the applicant,

<u>Basis for Insign. Activity</u>	<u>Description</u>
11-60.1-82(f)(1)	Three (3) 28,000 barrel fuel storage tanks which are insignificant based on the low vapor pressure of the fuel being stored. Kahului Generating Station also has VOC storage tanks with a capacity less than 40,000 gallons that are not subject to Section 111 or 1112 of the CAA.
11-60.1-82(f)(2)	Fuel burning equipment with a heat input capacity less than one MMBtu/hr.
11-60.1-82(f)(5)	One (1) Waudesha diesel engine generator installed in 1949 as a black start unit and is used an average of once per week, ½ hour for testing purposes.
11-60.1-82(f)(7)	Equipment leaks for valves, flanges, pump seals and oil/water separators. Solvents and acids are used for maintenance and cleaning purposes.

### **Alternate Operating Scenarios:**

As previously permitted, alternate fuel may be burned by the permittee. For this renewal, no other alternate operating scenarios are proposed.

### **Project Emissions:**

Per Steven Beene of Jim Clary & Associates, the emission rates in the initial application was conservatively estimated since there were no manufacturer's specifications on emissions. With an emission rate and the heat input value of the boiler, an "emission factor" can be calculated to compare with the AP-42 emission factor.

The emission factors had been updated from 7/93 revision to 9/98 revision and the new emission factors are reflected in the following tables. In the renewal application, no design or operating changes are proposed that would change the emission rates. With the exception of VOC emission rates for K3 and K4, the emission rates are the same as previously evaluated in the initial application and the corresponding emission factor based on the emission rate was calculated. This "adjusted" emission factor indicated a conservative emission rate since the value is higher than the AP-42 emission factor. The adjusted emission factor for VOC on K3 and K4 was raised to the AP-42 emission factor.

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The SO<sub>2</sub> emission rates are based on mass balance.

Based on heat input rates, K1 and K2 are classified as “industrial” and K3 and K4 as “utility.” The breakdown are as follows: Utility: > 100 MMBtu/hr, Industrial: 10 to 100 MMBtu/hr, Commercial: 0.5 to 10 MMBtu/hr, and Residential: < 0.5 MMBtu/hr.

TABLE 2 - NO<sub>x</sub> Emissions

Unit No.	<sup>a</sup> AP-42 Emission Factor, lb/MMBtu	Adjusted EF, lb/MMBtu	Heat Input, MMBtu/hr	Emission Rate, lb/hr	Emission Rate, Ton/yr
K-1	55 lb/10 <sup>3</sup> gal = <sup>b</sup> 0.36	<sup>c</sup> 0.58	94.0	54.2	237.4
K-2	0.36	0.58	94.0	54.2	237.4
K-3	47 lb/10 <sup>3</sup> gal = 0.31	0.62	172.0	106.2	465.2
K-4	0.31	0.67	181.0	121.4	531.7

<sup>a</sup>AP-42, Table 1.3-1, 9/98

<sup>b</sup>(55 lb/10<sup>3</sup> gal) x (gal / 0.152 MMBtu) = 0.36 lb/MMBtu

<sup>c</sup>54.2 lb/hr x hr/94.0 MMBtu = 0.58

TABLE 3 - SO<sub>2</sub> Emissions

Unit No.	Emission Factor, lb/MMBtu	Heat Input, MMBtu/hr	Emission Rate, lb/hr	Emission Rate, Ton/yr
K-1	<sup>a</sup> 2.20	94.0	207	907
K-2	2.20	94.0	207	907
K-3	2.20	172.0	378	1,657
K-4	2.20	181.0	398	1,743

<sup>a</sup> Using mass balance:

8.33 lb/gal x [gal / 0.152 MMBtu x 94 MMBtu/hr] x 2.0% by weight = 103 lb S/hr

S + O<sub>2</sub> → SO<sub>2</sub> implies 1:1 molar ratio for S:SO<sub>2</sub>

(MW SO<sub>2</sub> / MW S) x sulfur emission rate = (64.06 / 32.06) x (103) = 205.87 lb SO<sub>2</sub> / hr

(205.87 lb SO<sub>2</sub> / hr) x (hr / 618.42 gal) x (gal / 0.152 MMBtu) = 2.20 lb SO<sub>2</sub> / MMBtu

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TABLE 4 - CO Emissions

Unit No.	<sup>a</sup> AP-42 Emission Factor, lb/MMBtu	Adjusted EF, lb/MMBtu	Heat Input, MMBtu/hr	Emission Rate, lb/hr	Emission Rate, Ton/yr
K-1	5 lb/10 <sup>3</sup> gal = 0.033	0.066	94.0	6.2	27
K-2	0.033	0.066	94.0	6.2	27
K-3	0.033	0.066	172.0	11.4	50
K-4	0.033	0.066	181.0	12.0	52

<sup>a</sup>AP-42, Table 1.3-1, 9/98

TABLE 5 - PM Emissions

Unit No.	<sup>a</sup> AP-42 Emission Factor, lb/MMBtu	Adjusted EF, lb/MMBtu	Heat Input, MMBtu/hr	Emission Rate, lb/hr	Emission Rate, Ton/yr
K-1	<sup>b</sup> 21.60 lb/10 <sup>3</sup> gal = 0.14	0.39	94.0	36.2	158.6
K-2	0.14	0.68	94.0	64.0	280.3
K-3	0.14	0.80	172.0	138.1	604.9
K-4	0.14	0.61	181.0	110.5	484.0

<sup>a</sup>AP-42, Table 1.3-1, 9/98<sup>b</sup>9.19 (2) + 3.22 = 21.60

TABLE 6 - VOC Emissions

Unit No.	<sup>a</sup> AP-42 Emission Factor, lb/MMBtu	Adjusted EF, lb/MMBtu	Heat Input, MMBtu/hr	Emission Rate, lb/hr	Emission Rate, Ton/yr
K-1	0.28 lb/10 <sup>3</sup> gal = 0.002	0.0036	94.0	0.34	1.5
K-2	0.002	0.0036	94.0	0.34	1.5
K-3	0.76 lb/10 <sup>3</sup> gal = 0.0053	0.0053	172.0	0.87	3.8
K-4	0.0053	0.0053	181.0	0.92	4.0

<sup>a</sup>AP-42, Table 1.3-3, 9/98

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TABLE 7 - HAP emissions (Fuel Oil)

HAP Pollutant	<sup>1,2</sup> Emission Factor, lb/10 <sup>3</sup> gal	K-1, TPY	K-2, TPY	K-3, TPY	K-4, TPY	Total, TPY
Benzene	2.14 E-04	<sup>4</sup> 5.87 E-04	5.87 E-04	1.07 E-03	1.13 E-03	3.37 E-03
Ethylbenzene	6.36 E-05	1.75 E-04	1.75 E-04	3.19 E-04	3.36 E-04	1.01 E-03
Formaldehyde	<sup>3</sup> 6.10 E-02	1.67 E-01	1.67 E-01	3.06 E-01	3.22 E-01	9.64 E-01
Naphthalene	1.13 E-03	3.10 E-03	3.10 E-03	5.68 E-03	5.97 E-03	1.79 E-02
1,1,1-Trichloroethane	2.36 E-04	6.48 E-04	6.48 E-04	1.19 E-03	1.25 E-03	3.74 E-03
Toluene	6.20 E-03	1.70 E-02	1.70 E-02	3.11 E-02	3.28 E-02	9.79 E-02
o-Xylene	1.09 E-04	2.99 E-04	2.99 E-04	5.47 E-04	5.76 E-04	1.72 E-03
Acenaphthene	2.11 E-05	5.79 E-05	5.79 E-05	1.06 E-04	1.12 E-04	3.34 E-04
Acenaphthylene	2.53 E-07	6.94 E-07	6.94 E-07	1.27 E-06	1.34 E-06	4.00 E-06
Anthracene	1.22 E-06	3.35 E-06	3.35 E-06	6.13 E-06	6.45 E-06	1.93 E-05
Benz(a)anthracene	4.01 E-06	1.10 E-05	1.10 E-05	2.01 E-05	2.12 E-05	6.33 E-05
Benz(b,k)fluoranthene	1.48 E-06	4.06 E-06	4.06 E-06	7.43 E-06	7.82 E-06	2.34 E-05
Benzo(g,h,i)perylene	2.26 E-06	6.20 E-06	6.20 E-06	1.14 E-05	1.19 E-05	3.57 E-05
Chrysene	2.38 E-06	6.53 E-06	6.53 E-06	1.20 E-05	1.26 E-05	3.77 E-05
Dibenzo(a,h)anthracene	1.67 E-06	4.58 E-06	4.58 E-06	8.39 E-06	8.83 E-06	2.64 E-05
Fluoranthene	4.84 E-06	1.33 E-05	1.33 E-05	2.43 E-05	2.56 E-05	7.65 E-05
Fluorene	4.47 E-06	1.23 E-05	1.23 E-05	2.25 E-05	2.36 E-05	7.07 E-05
Indo(1,2,3-cd)pyrene	2.14 E-06	5.87 E-06	5.87 E-06	1.07 E-05	1.13 E-05	3.37 E-05
Phenanthrene	1.05 E-05	2.88 E-05	2.88 E-05	5.27 E-05	5.55 E-05	1.66 E-04
Pyrene	4.25 E-06	1.17 E-05	1.17 E-05	2.13 E-05	2.25 E-05	6.72 E-05
OCDD	3.10 E-09	8.51 E-09	8.51 E-09	1.56 E-08	1.64 E-08	4.90 E-08
Polycyclic Organic	1.30 E-03	3.57 E-03	3.57 E-03	6.53 E-03	6.87 E-03	2.05 E-02
Metal HAPs						
Antimony	5.25 E-03	1.44 E-02	1.44 E-02	2.64 E-02	2.78 E-02	8.29 E-02
Arsenic	1.32 E-03	3.62 E-03	3.62 E-03	6.63 E-03	6.98 E-03	2.09 E-02
Barium	2.57 E-03	7.05 E-03	7.05 E-03	1.29 E-02	1.36 E-02	4.06 E-02
Beryllium	2.78 E-05	7.63 E-05	7.63 E-05	1.40 E-04	1.47 E-04	4.40 E-04
Cadmium	3.98 E-04	1.09 E-03	1.09 E-03	2.00 E-03	2.10 E-03	6.28 E-03
Chloride	3.47 E-01	9.52 E-01	9.52 E-01	1.74	1.83	5.47

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Chromium	8.45 E-04	2.32 E-03	2.32 E-03	4.24 E-03	4.47 E-03	1.34 E-02
Chromium VI	2.48 E-04	6.81 E-04	6.81 E-04	1.25 E-03	1.31 E-03	3.92 E-03
Cobalt	6.02 E-03	1.65 E-02	1.65 E-02	3.02 E-02	3.18 E-02	9.50 E-02
Copper	1.76 E-03	4.83 E-03	4.83 E-03	8.84 E-03	9.30 E-03	2.78 E-02
Fluoride	3.73 E-02	1.02 E-01	1.02 E-01	1.87 E-01	1.97 E-01	5.88 E-01
Lead	1.51 E-03	4.15 E-03	4.15 E-03	7.58 E-03	7.98 E-03	2.39 E-02
Manganese	3.00 E-03	8.23 E-03	8.23 E-03	1.51 E-02	1.59 E-02	4.75 E-02
Mercury	1.13 E-04	3.10 E-04	3.10 E-04	5.68 E-04	5.97 E-04	1.79 E-03
Molybdenum	7.87 E-04	2.16 E-03	2.16 E-03	3.95 E-03	4.16 E-03	1.24 E-02
Nickel	8.45 E-02	2.32 E-01	2.32 E-01	4.24 E-01	4.47 E-01	1.34
Phosphorous	9.46 E-03	2.60 E-02	2.60 E-02	4.75 E-02	5.00 E-02	1.50 E-01
Selenium	6.83 E-04	1.88 E-03	1.88 E-03	3.43 E-03	3.61 E-03	1.08 E-02
Vanadium	3.18 E-02	8.73 E-02	8.73 E-02	1.60 E-01	1.68 E-01	5.03 E-01
Zinc	2.91 E-02	7.99 E-02	7.99 E-02	1.46 E-01	1.54 E-01	4.60 E-01

Total: 10.01

<sup>1</sup>AP-42, Table 1.3-9, 9/98

<sup>2</sup>AP-42, Table 1.3-11, 9/98 for Metal HAPs

<sup>3</sup>AP-42, Table 1.3-8, 9/98

<sup>4</sup>sample calculation: (94 MMBtu/hr) x (gal / 0.15 MMBtu) x (2.14 E-04 lb / 10<sup>3</sup> gal) x (8,760 hr/yr) x (ton/2,000 lb) = 5.87 E-04 TPY

TABLE 7 - HAP Emissions (Spec Used Oil)

HAP Pollutant	<sup>a</sup> Emission Factor, lb/10 <sup>3</sup> gal	Emissions, TPY
Hydrochloric acid	3.30 E-02	<sup>b</sup> 2.48 E-03
Phosphorus	No Data	--
Antimony	No Data	--
Arsenic	1.10 E-01	8.25 E-03
Beryllium	No Data	--
Cadmium	9.30 E-03	6.98 E-04
Chromium	2.00 E-02	1.50 E-03
Cobalt	2.10 E-04	1.58 E-05
Manganese	6.80 E-02	5.10 E-03
Nickel	1.10 E-02	8.25 E-04
Selenium	No Data	--

Total: 1.89 E-02

<sup>a</sup>AP-42, Table 1.11-3, Table 1.11-4 (10/96)

<sup>b</sup>(3.30 x 10<sup>-2</sup> lb / 10<sup>3</sup> gal) \* (150,000 gal/yr) \* (ton / 2,000 lb) = 2.48 x 10<sup>-3</sup>

Chlorine content of 0.05%, so 66 x 0.05 = 3.30 emission factor



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### Air Quality Assessment:

For this renewal, a new ambient air quality analysis was not required since there were no proposed changes in design/operation that would increase emissions or emit pollutants not previously emitted. For complete details, see previous project write-up on the air quality assessment for the initial covered source permit application.

The emission rates for VOC emissions from K3 and K4 were updated to the emission rates calculated from the AP-42. AP-42 presented higher emission factor than the one proposed under the initial application. The revised VOC emission rates do not affect the modeling since VOC emissions are not modeled.

ISC\_RTDM air modeling was used to predict air quality concentrations. Building Profile Input Program (BPIP) was incorporated into the modeling to determine which buildings/structures cause downwash (wake effects of the interaction between plume and building). Coarse grid was used to locate areas of *expected* maximum concentration and the refined grid (50 meter spacing) further identified the locations and magnitude of *predicted* maximum concentrations. Meteorological data was obtained from Kahului Airport; only the data for 1964 was available to be used in the modeling. The predicted concentrations assumes daily and yearly operations of 24 hours per day and 8,760 hours per year, respectively.

TABLE 8 - Emission Rates and Stack Parameters

SOURCE		EMISSION RATES					STACK PARAMETERS			
Equip.	Unit No.	SO <sub>2</sub> (g/s)	NO <sub>x</sub> (g/s)	CO (g/s)	PM <sub>10</sub> (g/s)	Pb (g/s)	Height (m)	Temp. (K)	Velocity (m/s)	Dia. (m)
5.9 MW Boiler	K-1	26.11	6.94	0.782	4.54	0.0001	56.4	450	11.0	1.2
6.0 MW Boiler	K-2	26.11	6.94	0.782	8.07	0.0001	56.4	422	10.9	1.2
12.7 MW Boiler	K-3	47.67	21.69	1.438	17.40	0.0001	56.4	436	12.2	1.5
13.0 MW Boiler	K-4	50.19	22.83	1.501	13.87	0.0001	56.4	433	12.6	1.7

<sup>1</sup> Since there were no design/operation changes, the emission rates for the air quality modeling will remain the same as documented in the project review for the initial covered source permit.

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TABLE 9 - Comparison to SAAQS

Pollutant	Averaging Time	<sup>1</sup> Background	Total Impact (ug/m <sup>3</sup> )	SAAQS (ug/m <sup>3</sup> )	Percent Standard, %
SO <sub>2</sub>	3-hr	--	781.55	1,300	60
	24-hr	--	251.84	365	69
	Annual	--	72.52	80	91
NO <sub>2</sub>	Annual	--	<sup>2</sup> 20.20	70	29
CO	1-hr	--	51.26	10,000	0.5
	8-hr	--	16.81	5,000	0.3
PM <sub>10</sub>	24-hr	--	72.40	150	48
	Annual	--	20.87	50	42
Pb	Calendar Qtr.	--	<sup>3</sup> 0	1.5	0
H <sub>2</sub> S	1-hr	--	<sup>3</sup> 0	35	0

<sup>1</sup>Background concentrations are not required pursuant to HAR 11-60.1-83(a)(12)

<sup>2</sup>75 percent of oxides of nitrogen is converted to NO<sub>2</sub>

<sup>3</sup>Pb and H<sub>2</sub>S emissions are negligible

## Significant Permit Conditions:

None.

## Other Issues/Conditions:

Conditions revised/added/deleted (strikeout for deletions and underline for additions) to original permit are as follows:

1. A.1.a. K-1 5.9 MW Combustion Engineering Boiler, Serial No. 13413;  
 K-2 6.0 MW Combustion Engineering Boiler, Serial No. 15345;  
 K-3 12.7 MW Combustion Engineering Boiler, Serial No. 17343; and  
 K-4 13.0 MW Babcock and Wilcox Boiler, Serial PFI3030.
- B.4.b. This permit shall not release the permittee from compliance with all applicable state and federal rules and regulations on handling, transporting, storing and burning of used oil. ~~If this permit is determined to be in conflict with any state or federal rules, the permit shall be surrendered upon request to the Department of Health.~~
- B.4.e. Prior to burning used oil in the boilers, a representative sample of the used oil shall be taken from sources identified in Special Condition B.4.c. of this Attachment. Each sample shall represent no more than 5,000 gallons of used oil or all the used oil collected in any six (6) month period, whichever is less.
- B.4.h. Polychlorinated Biphenyls (PCB) ≤2 ppm maximum

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- Section C. All records, including support information, shall be maintained for **at least five (5) years from** following the date of the monitoring sample, measurement, test, report, or application. Support information includes all ~~calibration and maintenance, inspection, and repair~~ records, and copies of all reports required by ~~the~~ this permit....
- C.2. The permittee shall maintain records on inspections, maintenance, and any repair work conducted on the boilers. ~~As~~ At a minimum, these records shall include: the date of the inspection; name and title of the inspector; a short description of the action and/or any such repair work; and a description of the part(s) inspected or repaired.
- C.5.a. Except in those months when V.E. observations are conducted by a certified reader for the annual observations, the permittee shall conduct **monthly** (*calendar month*) V.E. observations for each boiler subject to opacity limits in accordance with 40 CFR Part 60, Appendix A, Method 9 or by use of a Ringelmann's Chart as provided. ~~For each period, Two (2) consecutive six (6) minute observations shall be taken at fifteen (15) second intervals for six (6) consecutive minutes for each boiler.~~ Records shall be completed and maintained in accordance with the *Visible Emissions Form Requirements*.
- C.5.b. The permittee shall conduct **annually** (*calendar year*) V.E. observations for each boiler subject to opacity limits by a certified reader in accordance with 40 CFR Part 60, Appendix A, Method 9. ~~For each period, Two (2) consecutive six (6) minute observations shall be taken at fifteen (15) second intervals for six (6) consecutive minutes for each equipment boiler.~~ Records shall be completed and maintained in accordance with the *Visible Emissions Form Requirements*.
- C.5.c. "...Documentation should include, but is not limited to, the results of prior V.E. observations indicating compliance by a wide margin, the documentation of continuing compliance, and further that operations of the source have not changed since the previous source annual V.E. test."
- D.2. "The permittee shall report (in writing) **within five (5) working days** *any deviations from the permit requirements, ....*"
- D.3. The permittee shall submit, **semi-annually**, the following written reports to the Department of Health. The report shall be submitted **within sixty (60) days after the end of each semi-annual calendar period (January 1 to June 30 and July 1 to December 31),** and shall be signed and dated by ~~an authorized representative~~ a responsible official.
- D.5. Compliance Certification
- During the permit term, the permittee shall submit at least **annually** to the Department of Health ~~and USEPA Region 9 Attachment V: Compliance Certification~~ pursuant to HAR, Subsection 11-60.1-86. The permittee shall indicate whether or not compliance is being met with each term or condition of this permit. The compliance certification shall include at a minimum the following information:

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- a. The identification of each term or condition of the permit that is the basis of the certification;
- b. The compliance status;
- c. Whether compliance was continuous or intermittent;
- d. The methods used for determining the compliance status of the source currently and over the reporting period;
- e. Any additional information indicating the source's compliance status with any applicable enhanced monitoring and compliance certification including the requirements of Section 114(a)(3) of the Clean Air Act or any applicable monitoring and analysis provisions of Section 504(b) of the Clean Air Act; and
- f. Any additional information as required by the Department of Health including information to determine compliance.

\_\_\_\_\_ The compliance certification shall be submitted **within ninety (90) days after the end of each calendar year**, and shall be signed and dated by an authorized representative.

\_\_\_\_\_ Upon written request of the permittee, the deadline for submitting the compliance certification may be extended, if the Department of Health determines that reasonable justification exists for the extension.

### Conclusion and Recommendation:

For this renewal, no changes in design or operation has been proposed. In the previous review, the applicant demonstrated compliance with state/federal requirements. Quantification of emission were conservative in the adjustment of the AP-42 emission factor to yield a higher emission rate and annual emissions were based on boilers operating at maximum capacity for 8,760 hours/yr. As such, a renewal for a covered source permit for MECO - Kahului Generating Station is recommended based on the information provided in the renewal air permit application and subject to 30-day public review and 45-day EPA review periods.

Reviewer: Carl Ibaan  
Date: September 14, 2004